



## EFFECTS OF POPULATION EXPLOSION ON INDIAN ECONOMY

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### ABSTRACT

Population growth leads to the increase in poverty in developing countries in more than one way. First, rapid population growth swallows up a large part of annual increments in national income brought about by increase in investment or capital formation so that per capita income or level of welfare does not increase much. Thus savings and rate of capital formation remain low, reduction in per capita income, rise in general price level leading to sharp rise in cost of living. No improvement in agricultural and industrial technology, shortage of essential commodities, low standard of living, mass unemployment etc. Population growth and development, found that with rapid growth of population and labour force more resources need to be used for expansion of social expenditure on parks, hospitals roads, houses etc. and little resources are left for increase in capital per worker to raise labour productivity. This hinders higher growth in income per capita. A vicious circle of poverty operates in this regard. A rapid population growth lowers labour productivity which causes poverty, poverty causes high fertility rate which in turn causes high population growth rate. There is no wonder then that according to the poverty criteria fixed by Rangarajan Expert Committee 400 million people in India lived below the poverty line in 2011-12. As a result the entire economy of an underdeveloped country is surrounded by the vicious circle of poverty.

**KEYWORDS:** Population, Growth, Productivity, Agricultural and poverty.

### INTRODUCTION:

In a 'capital poor' and technologically backward country, growth of population reduces output by lowering the per capita availability of capital. Too much population is not good for economic development. Rapid growth of population is largely responsible for the perpetuation of vicious circle of poverty in underdeveloped countries. On account of rapid growth of population people are required to spend a major part of their income on bringing up their children.

Thus savings and rate of capital formation remain low, reduction in per capita income, rise in general price level leading to sharp rise in cost of living. No improvement in agricultural and industrial technology, shortage of essential commodities, low standard of living, mass unemployment etc. As a result the entire economy of an underdeveloped country is surrounded by the vicious circle of poverty.

Population growth leads to the increase in poverty in developing countries in more than one way. First, rapid population growth swallows up a large part of annual increments in national income brought about by increase in investment or capital formation so that per capita income or level of welfare does not increase much.

In India's Five Year Plans at least up to the 5<sup>th</sup> Five Year Plan (1974-79) a good part of the growth in national income was earned by growth in population and therefore rise in per capita income or level of welfare did not go up significantly. This is because of lower growth in per capita income until 1980 that India did not succeed in making much progress in reduction of absolute poverty.

Population growth adversely affects the problem of poverty indirectly through lowering the rate of saving which does therefore permit higher rate of investment or capital accumulation. With lower rate of investment or capital accumulation rate of growth of national income or GDP remains lower which makes it difficult to make a large dent into the problem of poverty. It is generally believed that the stable solution to the problem of poverty requires stepping up rate of economic growth. Thus by lowering the rate of saving and investment, population growth is a great impediment to eradication of poverty in developing countries like India.

Population growth and development, found that with rapid growth of population and labour force more resources need to be used for expansion of social expenditure on parks, hospitals roads, houses etc. and little resources are left for increase in capital per worker to raise labour productivity. This hinders higher growth in income per capita. A vicious circle of poverty operates in this regard. A rapid population growth lowers labour productivity which causes poverty, poverty causes high fertility rate which in turn causes high population growth rate. There is no wonder then that according to the poverty criteria fixed by Rangarajan Expert Committee 400 million people in India lived below the poverty line in 2011-12. A similar argument of rapid population growth affecting our ability to raise the living standards of the people or to reduce poverty has been advanced by Prof. K. Sundaram of Delhi School of Economics. According to him, the large increase in the extra number of people due to rapid population growth (around 18.2 million extra population every year as per latest Population Census 2011) requires

resources for feeding and clothing even at the current low level so that little is left for raising the living standards of the existing population. To quote him, "The size of increments to population is itself of some consequence. This is because the resource requirements of feeding and clothing even at the current low levels are such that the incremental population itself constrains the ability of the economy to raise the living standards of the existing population."

That rapid population growth causes increase in poverty can also be known from its effect on agriculture. Increase in population raises population pressure on arable land and reduces land-man ratio which causes lower productivity per person and leads to disguised unemployment and poverty. Not only that, rapid growth in farming population in India led to subdivision and fragmentation of land holdings which renders cultivation on tiny land-holdings unviable.

Not able to meet their basic needs with cultivation of tiny land holdings, many cultivators sell their land and join the ranks of landless agricultural labourers. As a result, as is seen from Fig. 12.1, in India the ratio of cultivators in agriculture has been falling and that of agricultural labour has been increasing. According to Population Census of 2011, even the absolute number of cultivators in agriculture declined in 2011. Due to the increase in agricultural labour, many of them do not find work in agriculture for a good part of the year and therefore remain unemployed.

Poverty in developing countries is also said to be responsible for environmental degradation. Poor people rely on natural resources more than the rich. For survival the rural poor are forced to cut forests for timber and fuel as well as graze animals on pasture lands more than the reproductive capacity of these natural resources. Besides, when the cultivable land becomes short relative to population, the poor are forced to make their subsistence by cultivating fragile land on hills and mountains resulting in soil erosion on a large scale. It is in such environment that poverty becomes a vicious circle. Poverty leads to land degradation and land degradation accelerates the process of impoverishment because the poor people depend directly on exploitation of natural resources on which property rights are not properly assigned.

In underdeveloped countries, the composition of population is determined to increase capital formation. Due to higher birth rate and low expectation of life in these countries, the percentage of dependents is very high. Nearly 40 to 50 per cent of the population is in the non-productive age group which simply consumes and does not produce anything. In under developed countries, rapid growth of population diminishes the availability of capital per head which reduces the productivity of its labour force. Their income, as a consequence, is reduced and their capacity to save is diminished which, in turn, adversely affects capital formation.

### REVIEW OF LITERATURE:

Review of related literature is an important research effort as it provides comprehensive understanding of what is already known about the topic. Familiarity with research work of others provides up-to-date knowledge of the latest developments, findings, recommendations, tools and loopholes of researches.

Malthus (1798) Population grows geometrically, while resources arithmetically. Meaning that, the increase in population is faster than food supply. Malthus was of the opinion that in the absence of a formal check on population, scarce resources will be distributed among an increasing number of individuals in the short run. If such checks do exist, Malthus has divided them into two categories, preventive & positive. In the absence of these two checks, the rate of population is maintained by diseases, famines, war and earthquakes.

Martin (2009) Further the increase in population tends to decrease savings. The need for social services becomes high and public expenditures should be used for the provision of basic needs, which definitely will affect the development work. More food will be imported and there will be high pressure on foreign exchange. High population created unemployment problems and difficulty in providing health services to ever increasing population.

Afzal (2009) Examined relationship between population growth and economic development for Pakistan using data from 1950 to 2001, employing multivariate methodology for analysis. He found significantly negative relationship between economic growth and economic development.

Dao (2012) On the other hand conducted a study for twenty three developing countries, the dependency ratio, the mortality rate and the rate of population growth remains less than 1.2 percent per year, while growth rate is linearly dependent on population growth.

Atanda, Aminu, & Alimi, (2012) The comparative trend of population growth determinants between developing countries Ethiopia, Indonesia, Mexico and Nigeria and developed nations (Germany and United States) have been analyzed.

#### **OBJECTIVES:**

The Main objectives of this paper is based on following headings:

- To Examine the effects of population growth on Indian Economy.

#### **METHODOLOGY:**

The method used in this paper is descriptive-evaluative method. The study is mainly review based. It is purely supported by secondary source of data, i.e. books, journals, papers and articles and internet.

#### **EFFECTS OF POPULATION GROWTH ON INDIAN ECONOMY:**

##### **Higher Rate of Population requires more Investment:**

In economically backward countries, investment requirements are beyond its investing capacity. A rapidly growing population increases the requirements of demographic investment which at the same time reduces the capacity of the people to save.

This creates a serious imbalance between investment requirements and the availability of investible funds. Therefore, the volume of such investment is determined by the rate of population growth in an economy. Some economists have estimated that for maintaining the present level of per capita income, 2 per cent to 5 per cent of national income must be invested if population grows at 1 per cent per annum.

Population is increasing at the rate of about 2.5 per cent per annum and 5 per cent to 12.5 per cent of their national income and hence the entire investment is absorbed by demographic investment and nothing is left for economic development. These factors are mainly responsible for stagnation in such economies.

##### **Reduces per Capita Availability of Capital:**

The large size of population also reduces per capita availability of capital in less developed countries. This is true in respect of underdeveloped countries where capital is scarce and its supply is inelastic. A rapidly growing population leads to a progressive decline in the availability of capital per worker. This further leads to lower productivity and diminishing returns.

Rapid growth of population directly effects per capita income in an economy. Up to 'income optimizing level', the growth of population increases per capita income but beyond that it necessarily lowers the same. In a sense, so long as the rate of population growth is lower than the per capita income, rate of economic growth will rise but if population growth exceeds the rate of economic growth, usually found in the case of less developed countries, per capita income must fall.

##### **Large Population creates the Problem of Unemployment:**

A fast growth in population means a large number of persons coming to the labour market for whom it may not be possible to provide employment. In fact, in underdeveloped countries, the number of job seekers is expanding so fast that despite all efforts towards planned development, it has not been possible to provide employment to all. Unemployment, underemployment and disguised employment are common features in these countries. The rapidly rising population makes it almost impossible for economically backward countries to solve their problem of unemployment.

#### **Rapid Population Growth creates Food Problem:**

Increased population means more mouths to feed which, in turn, creates pressure upon available stock of food. This is the reason, the under-developed countries with rapid growing population are generally faced with a problem of food shortage. Despite all their efforts for raising agricultural production, they are not able to feed their growing population.

Food scarcity effects economic development in two respects. Firstly, inadequate supply of food leads to undernourishment of the people which lowers their productivity. It further reduces the production capacity of the workers, Secondly, the deficiency of food compels to import food grains which places as unnecessarily strain on their foreign exchange resources.

#### **Population and Farming:**

The majority of population lives in, where agriculture is their mainstay. The growth of population is relatively very high in rural areas and it has disturbed the land man ratio. Further it has increased the problem of disguised unemployment and reduced per capita farm product in such economies, as the number of landless workers has largely increased followed by low rate of their wages.

The low farm productivity has reduced the propensity to save and invest. As a result these economies suffer largely for want of improved farm techniques and ultimately become the victim of the vicious circle of poverty. Thus retarded farming and the process of overall development.

Mostly people live in rural areas and their main occupation is agriculture and if the population increases the land-man ratio disturbed. Per capita availability of land for cultivation declined in India which makes the size of holdings very small. The small size of holdings makes adoption of modern technology means of irrigation and mechanization impossible.

This also leads to the occurrence of disguised unemployment and underemployment in the agricultural sector. It leads to congestion and moreover to reduction in land available for farming as well as for building houses, factories, hospitals, shopping centres, educational institutions, roads and railway tracks etc. Thus, the growth of population retards agricultural development and creates many other problems.

#### **Reduction in Efficiency of Labour Force:**

The labour force in an economy is the ratio of working population to total population. If we assume 50 years as the average life expectancy in an underdeveloped country, the labour force is in effect the number of people in the age group of 15-50 years. During the demographic transitional phase, the birth rate is high and the death rate has declined and due to which the larger percentage of total population is in lower age group of 1-15 years, which is small labour force implies that comparatively there are few persons to participate in productive employment.

To overcome the demographic transition stage, it is essential for less developed countries to bring down their fertility rate. Thus, we can conclude that labour force increases with the increase in population.

#### **Growing Population lowers Standard of Living:**

The standard of living is determined by their per capita income. The factors affecting per capita income in relation to population growth equally apply to the standard of living. The increase in population leads to an increased demand for food products, clothes, houses etc., but their supply cannot be increased due to the lack of cooperate factors like raw materials, skilled labour and capital etc.

#### **CONCLUSION:**

The cost and prices rise which raise the cost of living of the masses. This brings the standard of living low. Poverty breeds large number of children which increases poverty further and vicious circle of poverty. Thus, the consequence of population growth is to lower the standard of living. Thus, though a large number of poor people earn a good deal of their livelihood from the unmarketed natural resources such as common grazing lands, forests from where food, fuel and building materials are gathered by them, the degradation and loss of such resources may harm the poor and result in perpetuation of their poverty.

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